

P05435PCT_ST25
SEQUENCE LISTING

<110> Erber Aktiengesellschaft
<120> Polypeptid zur Detoxifizierung von Zearalenon, isoliertes
Polynukleotid davon sowie einen Zusatzstoff enthaltends
Polypeptid, Verwendung desselben
<130> P05435PCT
<140> PCT/AT2015/000138
<141> 2015-11-04
<150> A538/2015
<151> 2015-08-17
<160> 6
<170> PatentIn version 3.5
<210> 1
<211> 630
<212> PRT
<213> Trichosporon mycotoxinivorans

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Val Pro Thr Ala Pro Leu Ser Glu Glu Glu Arg Glu Ala Leu Lys His
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Arg Tyr Arg Ala Glu Arg Asp Lys Arg Ile Arg Glu Asp Gly Ile Lys
35 40 45

Gln Tyr Arg Ser Leu Glu Gly Leu Leu Asp Val Asp Asp Thr Lys Asp
50 55 60

Pro Tyr Thr Pro Val Lys Pro Arg Glu Pro Leu Asn Asp His Val Asp
65 70 75 80

Phe Leu Phe Leu Gly Gly Gly Phe Ala Gly Leu Ile Val Cys Ser His
85 90 95

Leu Lys Lys Thr Gly Phe Asn Asp Phe Arg Ile Ile Glu Ser Gly Gly
100 105 110

Asp Phe Gly Gly Val Trp Tyr Trp Asn Arg Phe Pro Gly Ala Met Cys
115 120 125

Asp Thr Ala Ala Met Val Tyr Leu Pro Leu Leu Glu Glu Thr Gly Thr
130 135 140

Val Pro Ser Ala Lys Tyr Val Arg Gly Pro Glu Ile Leu Ala His Ala
145 150 155 160

Gln Arg Ile Ala Arg Thr Phe Asp Leu Tyr Pro His Ala Leu Phe His
Seite 1

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170

165

175

Thr His Leu Glu Ser Leu Thr Trp Asp Glu Glu Gln Gly Val Trp Lys
180 185 190

Val Lys Thr Arg Gln Gly Asp Ser Phe Thr Ala Thr His Val Gly Met
195 200 205

Gly Thr Gly Pro Leu Asn Lys Pro His Leu Pro Gly Ile Pro Gly Ile
210 215 220

Glu Lys Phe Lys Gly Lys Ala Met His Thr Ala Arg Trp Asp Phe Ala
225 230 235 240

Thr Thr Gly Gly Gly Trp Asn Gly Glu Val Met Glu Gly Leu Lys Asp
245 250 255

Lys Arg Val Gly Val Ile Gly Thr Gly Ala Thr Gly Ile Gln Ala Ile
260 265 270

Pro Glu Leu Gly Arg Asp Ser Gly Glu Leu Phe Val Phe Gln Arg Thr
275 280 285

Pro Ser Ala Val Ala Val Arg Gly Asn His Pro Ile Asp Pro Glu Trp
290 295 300

Phe Ala Ser Leu Asp Lys Gly Trp Gln Thr Lys Trp Asn Arg Asn Phe
305 310 315 320

Ile Gln Leu Met Ser Ser Gly Met Ala Glu Asn Asp Tyr Val Arg Asp
325 330 335

Gly Trp Thr Asp Gly Val Lys Arg Ile Thr Ala Arg Met Phe Ala Glu
340 345 350

Ala Ala Lys Ala Gly Arg Asp Pro Ser Thr Leu Ser Phe Asp Asp Phe
355 360 365

Leu Ala Ala Tyr His Leu Ser Asp Asp Glu Tyr Met Thr Ala Val Arg
370 375 380

Asn Arg Thr Asn Glu Val Val Asn Asp Pro Lys Thr Ala Asp Gly Leu
385 390 395 400

Lys Ala Trp Tyr Arg Gln Phe Cys Lys Arg Pro Cys Phe His Asp Glu
405 410 415

Phe Leu Ala Thr Phe Asn Arg Pro Thr Val His Leu Val Asp Thr Asn
420 425 430

Gly Gln Gly Val Thr Glu Val Asp Glu Thr Gly Val Trp Ala Asn Gly
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435

440

445

Gln His Tyr Asp Leu Asp Ile Ile Val Tyr Ala Thr Gly Phe Glu Phe
 450 455 460

Asn Ser Glu Trp Thr Tyr Lys Ser Gly Met Glu Val Tyr Gly Arg Asp
 465 470 475 480

Gly Leu Thr Leu Thr Gln Ala Trp Lys Asp Gly Met Lys Thr Tyr His
 485 490 495

Gly Met His Ile Asn Gly Phe Pro Asn Leu Phe Met Leu Gln Phe Gln
 500 505 510

Gln Gly Ser Ser Leu Ala Ser Asn Ile Thr Ser Asn Tyr Val Asp Ser
 515 520 525

Gly Tyr Thr Ile Ala Ala Ile Leu Asn Lys Lys Lys Glu Leu Gly Ala
 530 535 540

Lys Thr Val Glu Val Pro Ala Asp Val Gln Ser Lys Trp Ile Glu His
 545 550 555 560

Leu Leu Thr Ala Asn Lys Gly Leu Ile Gly Gly Pro Glu Cys Thr Pro
 565 570 575

Gly Tyr Tyr Asn Asn Glu Gly Gln Glu Glu Gly Leu Lys Glu Lys Leu
 580 585 590

Asn Gly Ala Arg Tyr Pro Ala Gly Ser Leu Ala Phe Phe Asp Tyr Ile
 595 600 605

Ala Glu Trp Arg Thr Asn Gly Lys Phe Glu Gly Leu Ala Phe Asp Gly
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Lys Gln Ile Ala Val Gln
 625 630

<210> 2
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 <212> PRT
 <213> Trichosporon mycotoxinivorans

<400> 2

Met Ser Ala Ser Arg Pro Arg Gly Ser Pro His Tyr Leu Gly Asp Arg
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Ser Thr Lys Ser Gly Leu Arg Arg Pro Phe Lys Arg Ser Lys Lys Asn
 20 25 30

Arg Ala Thr Asn Ala Val Phe Ser Gln Arg His Arg Lys Pro Thr Glu
 35 40 45

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Gly Ala Gly Val Arg Gly Lys His Ser Cys Ser Val Ile Pro Asp Lys
 50 55 60

His Thr Ala Pro Trp Gly Pro Ala Ala Ala Glu Pro Gly Trp His Met
 65 70 75 80

Thr Leu Glu Ala Ile Pro Val Pro Glu Glu Thr Pro Ala Gln Thr Val
 85 90 95

Pro Thr Ala Pro Leu Ser Glu Glu Glu Arg Glu Ala Leu Lys His Arg
 100 105 110

Tyr Arg Ala Glu Arg Asp Lys Arg Ile Arg Glu Asp Gly Ile Lys Gln
 115 120 125

Tyr Arg Ser Leu Glu Gly Leu Leu Asp Val Asp Asp Thr Lys Asp Pro
 130 135 140

Tyr Thr Pro Val Lys Pro Arg Glu Pro Leu Asn Asp His Val Asp Phe
 145 150 155 160

Leu Phe Leu Gly Gly Gly Phe Ala Gly Leu Ile Val Cys Ser His Leu
 165 170 175

Lys Lys Thr Gly Phe Asn Asp Phe Arg Ile Ile Glu Ser Gly Gly Asp
 180 185 190

Phe Gly Gly Val Trp Tyr Trp Asn Arg Phe Pro Gly Ala Met Cys Asp
 195 200 205

Thr Ala Ala Met Val Tyr Leu Pro Leu Leu Glu Glu Thr Gly Thr Val
 210 215 220

Pro Ser Ala Lys Tyr Val Arg Gly Pro Glu Ile Leu Ala His Ala Gln
 225 230 235 240

Arg Ile Ala Arg Thr Phe Asp Leu Tyr Pro His Ala Leu Phe His Thr
 245 250 255

His Leu Glu Ser Leu Thr Trp Asp Glu Glu Gln Gly Val Trp Lys Val
 260 265 270

Lys Thr Arg Gln Gly Asp Ser Phe Thr Ala Thr His Val Gly Met Gly
 275 280 285

Thr Gly Pro Leu Asn Lys Pro His Leu Pro Gly Ile Pro Gly Ile Glu
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Lys Phe Lys Gly Lys Ala Met His Thr Ala Arg Trp Asp Phe Ala Thr
 305 310 315 320

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Thr Gly Gly Gly Trp Asn Gly Glu Val Met Glu Gly Leu Lys Asp Lys
325 330 335

Arg Val Gly Val Ile Gly Thr Gly Ala Thr Gly Ile Gln Ala Ile Pro
340 345 350

Glu Leu Gly Arg Asp Ser Gly Glu Leu Phe Val Phe Gln Arg Thr Pro
355 360 365

Ser Ala Val Ala Val Arg Gly Asn His Pro Ile Asp Pro Glu Trp Phe
370 375 380

Ala Ser Leu Asp Lys Gly Trp Gln Thr Lys Trp Asn Arg Asn Phe Ile
385 390 395 400

Gln Leu Met Ser Ser Gly Met Ala Glu Asn Asp Tyr Val Arg Asp Gly
405 410 415

Trp Thr Asp Gly Val Lys Arg Ile Thr Ala Arg Met Phe Ala Glu Ala
420 425 430

Ala Lys Ala Gly Arg Asp Pro Ser Thr Leu Ser Phe Asp Asp Phe Leu
435 440 445

Ala Ala Tyr His Leu Ser Asp Asp Glu Tyr Met Thr Ala Val Arg Asn
450 455 460

Arg Thr Asn Glu Val Val Asn Asp Pro Lys Thr Ala Asp Gly Leu Lys
465 470 475 480

Ala Trp Tyr Arg Gln Phe Cys Lys Arg Pro Cys Phe His Asp Glu Phe
485 490 495

Leu Ala Thr Phe Asn Arg Pro Thr Val His Leu Val Asp Thr Asn Gly
500 505 510

Gln Gly Val Thr Glu Val Asp Glu Thr Gly Val Trp Ala Asn Gly Gln
515 520 525

His Tyr Asp Leu Asp Ile Ile Val Tyr Ala Thr Gly Phe Glu Phe Asn
530 535 540

Ser Glu Trp Thr Tyr Lys Ser Gly Met Glu Val Tyr Gly Arg Asp Gly
545 550 555 560

Leu Thr Leu Thr Gln Ala Trp Lys Asp Gly Met Lys Thr Tyr His Gly
565 570 575

Met His Ile Asn Gly Phe Pro Asn Leu Phe Met Leu Gln Phe Gln Gln
580 585 590

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Gly Ser Ser Leu Ala Ser Asn Ile Thr Ser Asn Tyr Val Asp Ser Gly
595 600 605

Tyr Thr Ile Ala Ala Ile Leu Asn Lys Lys Lys Glu Leu Gly Ala Lys
610 615 620

Thr Val Glu Val Pro Ala Asp Val Gln Ser Lys Trp Ile Glu His Leu
625 630 635 640

Leu Thr Ala Asn Lys Gly Leu Ile Gly Gly Pro Glu Cys Thr Pro Gly
645 650 655

Tyr Tyr Asn Asn Glu Gly Gln Glu Glu Gly Leu Lys Glu Lys Leu Asn
660 665 670

Gly Ala Arg Tyr Pro Ala Gly Ser Leu Ala Phe Phe Asp Tyr Ile Ala
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Gln Ile Ala Val Gln
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<210> 3
<211> 630
<212> PRT
<213> Trichosporon asahii

<400> 3

Met Thr Ile Asp His Ile Pro Glu Pro Thr Asp Tyr Lys Gln Thr Gln
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Pro Val Ala Pro Leu Ala Asp Glu Glu Arg Gln Ala Leu Gln Ala Lys
20 25 30

Tyr Arg Glu Glu Arg Asp Lys Arg Leu Arg Ala Asp Gly Ile Asn Gln
35 40 45

Tyr Lys Pro Leu Gly Gly Ile Leu Lys Leu Asp Glu Asp Lys Asp Pro
50 55 60

Tyr Thr Asp Val Gln Pro Arg Glu Pro Val His Asp His Val Asp Phe
65 70 75 80

Leu Phe Leu Gly Gly Gly Phe Ala Gly Leu Thr Val Cys Ala Lys Leu
85 90 95

Lys Gln Ala Gly Phe Asp Ser Ile Arg Ile Leu Glu Ser Gly Gly Asp
100 105 110

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Phe Gly Gly Val Trp Tyr Trp Asn Arg Phe Pro Gly Ala Met Cys Asp
115 120 125

Thr Ala Ala Met Val Tyr Leu Pro Met Met Glu Glu Val Gly Thr Val
130 135 140

Pro Ser Ala Lys Tyr Val Arg Gly Pro Glu Ile Leu Ala His Ala His
145 150 155 160

Arg Ile Ala Arg His Phe Asp Leu Tyr Pro His Ala Leu Phe Ser Thr
165 170 175

His Leu Glu Glu Leu Arg Trp Asp Glu Asp Arg Ser Val Tyr Val Val
180 185 190

Lys Thr Arg Glu Gly Asp Glu Phe Thr Ala Thr Asn Val Ala Met Gly
195 200 205

Thr Gly Pro Leu Asn Arg Pro His Leu Pro Gly Ile Pro Gly Leu Glu
210 215 220

Thr Phe Lys Gly Gln Ala Met His Thr Ala Arg Trp Asp Phe Gly Val
225 230 235 240

Thr Gly Gly Gly Trp Asp Asp Glu Val Leu Glu Gly Leu Lys Asp Lys
245 250 255

Arg Val Gly Val Ile Gly Thr Gly Ala Thr Gly Val Gln Cys Ile Pro
260 265 270

Thr Leu Gly Arg Asp Ser Gly Ser Leu His Val Phe Gln Arg Thr Pro
275 280 285

Ser Ala Val Ala Ile Arg Gly Asn His Ala Ile Asp Lys Glu Trp Phe
290 295 300

Ser Gln Leu Asp Lys Gly Trp Gln Thr Lys Trp Leu Arg Asn Phe Cys
305 310 315 320

Gln Leu Met Ser Thr Gly Tyr Ala Pro Val Asp Tyr Val His Asp Gly
325 330 335

Trp Thr Asp Gly Val Gln Arg Ile Thr Lys Arg Met Leu Glu Met Cys
340 345 350

Ala Lys Glu Gly Arg Ala Pro Thr Gly Met Ala Asp Tyr Met Lys Ala
355 360 365

Tyr His Leu Ser Asp Asp Glu Tyr Thr Thr Ala Val Arg Ala Arg Thr
370 375 380

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Asp Glu Val Val Lys Asp Pro Glu Thr Ala Asp Lys Leu Lys Ala Trp
 385 390 395 400

Tyr Arg Gln Phe Cys Lys Arg Pro Thr Phe His Asp Glu Tyr Leu Gln
 405 410 415

Thr Phe Asn Arg Pro Asn Val Thr Leu Val Asp Thr Asp Gly Lys Gly
 420 425 430

Val Glu Arg Ile Asp Glu Thr Gly Val Trp Ala Asn Gly Lys His Tyr
 435 440 445

Asp Leu Asp Val Leu Val Tyr Ala Thr Gly Phe Glu Phe Asn Ser Glu
 450 455 460

Tyr Thr Tyr Lys Ser Gly Leu Glu Val Tyr Gly Arg Gly Gly Arg Thr
 465 470 475 480

Leu Thr Asp Ala Trp Lys Asp Gly Met Gln Ser Phe Gln Gly Met His
 485 490 495

Val His Gly Phe Pro Asn Leu Phe Val Ile Gly Phe Ala Gln Gly Ser
 500 505 510

Ser Leu Ala Ser Asn Ile Thr Ser Asn Tyr Thr Glu His Gly Pro Thr
 515 520 525

Val Leu Ser Ile Leu Gln Lys Lys Lys Glu Leu Gly Ala Lys Thr Val
 530 535 540

Glu Val Pro Gln Lys Thr Gln Asp Asp Trp Ile Glu Leu Ile Leu Gln
 545 550 555 560

Gly Asp Arg Gly Ile Ile Gly Gly Pro Glu Cys Thr Pro Gly Tyr Tyr
 565 570 575

Asn Asn Glu Gly Gln Glu Glu Gly Arg Arg Glu Arg Leu Asn Val Ala
 580 585 590

Arg Tyr Pro Ala Gly Pro Leu Ala Phe Phe Asp Tyr Ile Ala Glu Trp
 595 600 605

Arg Ala Asn Gly Lys Phe Glu Gly Leu Glu Phe Asp Gly Lys Pro Val
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Glu Ile Ala Ala Thr Leu
 625 630

<210> 4
 <211> 1890
 <212> DNA

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<213> Artificial Sequence

<220>

<223> Codon Optimiertes Polynukleotid des Polypeptids mit SEQ ID Nr. 1
zur Expression in *Saccharomyces cerevisiae*

<400> 4

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| ccattgtctg | aagaagaaag | agaagccttg | aaacatagat | acagagccga | aagagataag | 120 |
| agaatcagag | aagatggtat | caagcaatac | agatccttgg | aaggtttggt | ggatgttgat | 180 |
| gataccaaag | atccatacac | tccagttaag | ccaagagaac | cattgaacga | tcatgtcgat | 240 |
| tttttgtttt | tgggtggtgg | ttttgctggt | ttgatcgttt | gttctcattt | gaaaaagacc | 300 |
| ggtttcaacg | acttcagaat | cattgaatct | gggtggtgatt | tcggtggtgt | ttggtattgg | 360 |
| aatagatttc | caggtgctat | gtgtgatact | gctgctatgg | tttatttgcc | tttggtggaa | 420 |
| gaaactggta | cagttccatc | tgctaaatat | gtagagggtc | cagaaatttt | ggctcacgct | 480 |
| caaagaattg | ctagaacttt | tgacttgtag | ccacatgctt | tgttccatac | ccatttgga | 540 |
| tctttgactt | gggatgaaga | acaagggtgt | tggaaagtta | agaccagaca | agggtgattct | 600 |
| ttcactgcta | ctcatgttgg | tatgggtact | ggtccattga | acaaaccaca | tttgcttggg | 660 |
| attccaggta | tcgaaaagtt | taaaggtaag | gctatgcata | ccgctagatg | ggattttgct | 720 |
| actactggtg | gtggttgga | tgggtgaagt | atggaagggt | taaaggataa | gagagtgtgt | 780 |
| gttattggta | ctggtgctac | tgggtattca | gctataccag | aattgggtag | agactccggt | 840 |
| gaattatttg | ttttccaaag | aacaccatcc | gctgttgtag | ttagaggtaa | tcatccaatt | 900 |
| gatccagaat | ggtttgcttc | tttgataag | ggttggcaaa | caaagtggaa | cagaaacttt | 960 |
| attcaattga | tgtcctccgg | tatggccgaa | aatgattacg | ttagagatgg | ttggactgat | 1020 |
| gggtgtaaga | gaattactgc | tagaatgttt | gctgaagctg | ctaaagctgg | tagagatcca | 1080 |
| tctactttgt | ctttcgatga | tttcttggct | gcctaccatt | tgtccgatga | tgaatatatg | 1140 |
| actgccgtca | gaaacagaac | taacgaagtt | gttaacgatc | caaagactgc | tgatggtttg | 1200 |
| aaagcttggg | atagacaatt | ctgcaaaaga | ccatgcttcc | acgatgaatt | tttggttact | 1260 |
| tttaacagac | caaccgttca | cttggttgat | acaaatgggtc | aagggtgttac | tgaagttgac | 1320 |
| gaaaccgggtg | tttggtgctaa | tgggtcaacat | tacgatttgg | atattatcgt | ttacgccact | 1380 |
| ggtttcgaat | tcaactctga | atggacttac | aagtctggta | tggaaagtta | tggtagagat | 1440 |
| ggtttgacat | tgactcaagc | ttggaaagac | ggtatgaaaa | cctatcatgg | tatgcacatt | 1500 |
| aacgggtttcc | caaacttggt | catgttgcaa | ttccaacaag | gttcctcttt | ggcttctaac | 1560 |
| atcacttcta | actacgttga | ttccggttac | accattgctg | ctattttgaa | caaaaagaaa | 1620 |
| gaattagggtg | ccaagaccgt | tgaagttcca | gctgatgttc | aatctaaatg | gatcgaacat | 1680 |
| ttgttgaccg | ctaacaaggg | tttgattggg | ggtccagaat | gtactccagg | ttactataac | 1740 |
| aatgaagggtc | aagaagaagg | tttgaaagaa | aagttgaacg | gtgctagata | tccagctggg | 1800 |
| tcattggcctt | ttttcgatta | cattgctgaa | tggagaacta | atggtaaatt | cgaagggttg | 1860 |

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1890

<210> 5

<211> 2127

<212> DNA

<213> Trichosporon mycotoxinivorans

<400> 5

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| ggctctacgca gaccgtttta acggctcgaag aagaacagag ccacgaacgc cgtgttttcc | 120 |
| cagcgccatc gcaagccaac cgaagggtgcc ggtgttcggg gtaaacacag ttgctcgggtg | 180 |
| atccccgata agcacaccgc cccatggggc ccggccgccc ccgaacctgg atggcacatg | 240 |
| acactcgaag ctattcctgt tcccaggagg acgcccgcgc agaccgtccc caccgctccg | 300 |
| ctctcggagg aagagcgca ggccttgaag caccgatacc gcgccgagag ggacaagcgt | 360 |
| atccgcgaag acggcatcaa gcagtaccgc tccctggagg gtcttctgga cgtcgacgac | 420 |
| accaaggacc cgtacacgcc cgtgaagcct cgtgagcccc tgaacgacca tgtcgacttc | 480 |
| ctgttcctgg gtgggtgggtt cgccggcctc attgtctgct cccatctcaa aaagaccggc | 540 |
| ttcaacgatt tccgcatcat cgagtcgggc ggagactttg gaggtgtatg gtactggaac | 600 |
| cgcttccccg gcgccatgtg tgacaccgcc gcgatggtct acttgcccct cctcgaggag | 660 |
| acgggcaccg tgccgtcggc caagtatgtc cgtggcccag agattcttgc gcacgcgcag | 720 |
| cgcacgctc gcacgtttga cctgtaccgc cagctctgt tccacacgca cctcgagtct | 780 |
| cttacgtggg acgaggagca gggcgtctgg aaggtaaga cgcgccaggg cgactcgctc | 840 |
| acggcgaccc acgtgggcat gggcaccgga cctctcaaca agccccacct tcctgggtatc | 900 |
| cccggatatc aaaagttcaa gggcaaggcg atgcacactg cccgctggga ctttgcgacg | 960 |
| acgggcggcg gctggaatgg agaagttatg gagggactca aggacaagcg cgtcggcgtg | 1020 |
| atcgggtacc gcgctaccgg catccaggcg attcccagc tcggccgca cagcggcgag | 1080 |
| cttttcgtgt tccagcgac gccctccgct gtcgccgtcc gaggcaacca ccccatcgac | 1140 |
| cccgagtggg ttgcgagcct cgacaagggg tggcagacaa agtggaaccg taactttatc | 1200 |
| cagctcatga gctcgggcat ggccgagaa gactatgtcc gtgacggctg gaccgacggc | 1260 |
| gtcaagcgca ttacggccag gatgtttgcc gaggcggcaa aggctggtcg ggacccttcg | 1320 |
| actctgtcgt ttgatgactt ccttgcggcg taccatctct cggacgacga gtacatgaca | 1380 |
| gcggtacgca accgcactaa cgaagtcgtc aacgaccca agaccgccga cggctctcaag | 1440 |
| gcgtgggtacc gccagttttg caagcgtccg tgcttccacg acgagttttt ggccaccttc | 1500 |
| aaccgcccta ccgtccacct cgtggacacc aacggccagg gcgtaaccga ggtcgacgag | 1560 |
| acgggcgtct gggccaacgg acagcactac gacctcgaca ttatcgtcta tgccactgga | 1620 |
| ttcgagttca actcggagtg gacatacaag tccggcatgg aggtgtacgg ccgcgacggg | 1680 |
| ctcaccctca cgcaggcgtg gaaggacggc atgaagacgt accacggcat gcacatcaac | 1740 |

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| gggttcccca acctgttcat gcttcagttc cagcagggat cgctcgctcgc atccaacatt | 1800 |
| acatccaact atgtcgactc gggctacacc attgcggcga ttctcaacaa gaaaaaggag | 1860 |
| ctcggagcca agacggtcga ggtccccgcc gacgtccagt caaagtggat cgagcacctc | 1920 |
| ctcaccgcga acaagggcct gatcggagga ccagagtgcg cccccggata ctacaacaac | 1980 |
| gagggccagg aggaaggcct caaggagaag ctcaacggag cacgggtaccc tgcgggatct | 2040 |
| ctcgcatctt ttgactacat cgccgagtgg cgtacaaacg gcaagtttga gggctttgcg | 2100 |
| tttgatggaa agcagatcgc agtgcag | 2127 |

<210> 6
 <211> 1893
 <212> DNA
 <213> Trichosporon asahii

<400> 6

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| ctggcggacg aggagcgcca ggcgctgcag gccaaatacc gcgaggagcg cgacaagcga | 120 |
| ctccgcgccg atggtattaa ccagtacaag cccctcggcg gcatcttgaa gctggacgag | 180 |
| gacaaggacc cgtacacgga cgtccagccg cgcgagccgg tccacgacca tgtcgacttt | 240 |
| ctgttccttg gcggtggctt cgcgggcctg acggtgtgcg cgaagctgaa gcaggcgggc | 300 |
| tttgactcga tccgcatcct cgagagcgga ggcgactttg gcggcgtctg gtactggaac | 360 |
| cgcttccccg gcgccatgtg cgacacggcc gccatggtct acctccccat gatggaggag | 420 |
| gttggcacgg tgccctcggc caaatatgtc cgcggacccg agattctcgc ccacgcccac | 480 |
| cgcacgcgc gccacttcga cctctacccc cacgctctgt tcagcaccca cctcgaggag | 540 |
| ctgcgctggg acgaggaccg cagcgtctac gttgtcaaga cgcgcgaggg cgacgagttc | 600 |
| acggcgacca acgtcgcgat gggcactgga cccctgaacc gtccccacct gcccggtatc | 660 |
| cctggactgg agacattcaa gggccaggcg atgcacaccg ctcgctggga ctttggcgtg | 720 |
| accggcggag gctgggacga tgaggtcctc gaggggttga aggacaagcg tgtcgggtgc | 780 |
| atcggcacgg gcgccacggg tgtgcagtgt atcccgactc ttggacgcga ctctggctcc | 840 |
| ctgcatgtgt tccagcgcac gccctctgcc gtcgctatcc gcggcaacca tgcgattgac | 900 |
| aaggagtggg tcagccagct ggacaagggg tggcagacca agtggctgcg caacttctgc | 960 |
| cagctcatgt cgaccgggta cgccccgctc gattacgtcc acgacgggtg gaccgacggc | 1020 |
| gtgcagcgca tcacgaagcg catgctcgag atgtgcgcca aggaggggcg cgcgccgacc | 1080 |
| ggaatggcag actacatgaa ggcgtaccac ctcagcgacg acgagtacac caccgccgtg | 1140 |
| cgcgcccga ccgacgaggt cgtcaaggat cccgaaacgg ccgacaagct gaaggcgtgg | 1200 |
| tacaggcagt tttgcaaacg cccaccttt catgacgagt acttgacagac gttcaaccgg | 1260 |
| ccgaacgtta cgctcgtcga cacggacggc aagggcgtgg agcgcacga cgagacgggc | 1320 |
| gtctgggcga acggcaagca ctacgacctc gacgtacttg tgtacgcgac aggcttcgag | 1380 |
| ttcaactcgg agtacacata caagtctggt ctcgaggtgt acggtcgcgg tgggcgcacg | 1440 |

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| ctcaccgatg catggaagga cggcatgcag tccttccagg gcatgcacgt gcacgggttc | 1500 |
| ccgaacctgt tcgtgatcgg ttttgcgag gggtcctcac tcgctccaa cattacgagc | 1560 |
| aactacaccg agcacgggcc cacggctctc agcatcctgc agaagaagaa ggagctcggc | 1620 |
| gctaagacgg tcgaggtgcc ccagaaaacg caggacgact ggatcgaact catcctccag | 1680 |
| ggcgaccggg gcattattgg cgggtcccag tgcacacccg gctactacaa caacgagggc | 1740 |
| caggaggagg gccgtcgca gcgcctcaat gttgcgcgat accccgctgg tccgctcgt | 1800 |
| ttcttcgact acatcgccga gtggcgcgcg aacggcaagt tcgagggcct cgagtttgat | 1860 |
| ggcaagccgg tcgagattgc cgcgactctg tag | 1893 |